



TEXAS TECH UNIVERSITY

Natural Science Research Laboratory

# OCCASIONAL PAPERS

Museum of Texas Tech University

Number 293

17 June 2010

## ANNOTATED CHECKLIST OF THE RECENT WILD MAMMALS OF ARKANSAS

*MATTHEW B. CONNIOR*

### ABSTRACT

In this checklist, I present the current known distribution of the mammals of Arkansas with pertinent information regarding rare, threatened, and endangered species. Since the latest publication on the mammals of Arkansas, several taxonomic and nomenclatural changes have occurred as well as changes in the known distributions of some species. *Geomys bursarius* has been added to the list of mammals occurring in Arkansas and several changes have occurred in the taxonomy of the orders Chiroptera and Carnivora.

Key words: Arkansas, mammal checklist, mammalian distribution

### INTRODUCTION AND METHODS

It has been 20 years since the publication of *Arkansas Mammals: Their Natural History, Classification, and Distribution* by Sealeander and Heidt (1990). This book was a comprehensive work on the wild mammals of Arkansas at that time. Since then, there have been numerous changes within the nomenclature and taxonomy of the mammals of Arkansas as well as changes in range distributions.

This annotated checklist updates the nomenclature, taxonomy, and distributions of Arkansas mammals to serve as a valuable resource for those interested in the mammals of Arkansas. The approximate known geographic distribution within the state of Arkansas (see maps in Sealeander and Heidt 1990) is reported for each mammal and pertinent taxonomic comments and any changes in range distributions may be included. Species listed with an asterisk (\*) are considered exotic or feral. The range distribution of species within Sealeander and Heidt (1990) was presented in two ways: (1) occurring statewide without specific county records

or (2) limited distributions with specific county records identified. The updated distributions within this checklist typically supplement the latter with additional records from counties listed. Figure 1 should be referenced for species accounts where specific counties are listed. Species that are generally rare or currently less common than previously thought are discussed as well within this checklist.

The taxonomy and phylogenetic listing of mammalian taxa (orders, families, genera) follows Baker et al. (2003). Within genera, species are listed alphabetically. The authorities and dates for species are provided but are not referenced in the literature cited section. Nomenclatural changes at the generic and species levels are discussed, yet higher taxonomy is simply updated. Taxonomic and nomenclatural changes within the orders Chiroptera and Carnivora have occurred recently. Of special note, *Geomys bursarius* has been added to the known fauna of Arkansas.



Figure 1. County map of Arkansas.

## CHECKLIST

**ORDER DIDELPHIMORPHIA—OPOSSUMS**  
Family Didelphidae  
(opossums)

*Didelphis virginiana* (Virginia opossum).—Opossums occur throughout the state (Sealander and Heidt 1990). The subspecies is *D. v. virginiana* Kerr 1792.

**ORDER SORICOMORPHA—SHREWS AND MOLES**  
Family Soricidae  
(shrews)

*Sorex longirostris* (southeastern shrew).—I follow Wilson and Reeder (2005) in the use of this ordinal name for shrews and moles. Sealander and Heidt (1990) projected this shrew to occur statewide except extreme southern Arkansas. However, Heidt

et al. (1996) suggested that its distribution is restricted to the Interior Highlands based on the nine county records, including Yell County (Hutson and Nelson 1994). Recently, Showen (2006) collected it from Pope County. The state ranking is S2 (Imperiled in Arkansas; Anderson 2007). The subspecies is *S. l. longirostris* Bachman 1837.

*Blarina carolinensis* (southern short-tailed shrew).—This shrew is common in the southeastern two-thirds of the state (Sealander and Heidt 1990). This shrew recently has been collected from Hot Spring, Izard, and Pope Counties (Tumlison et al. 1992; Showen 2006; Connior et al. 2008). The northwestern boundary is a contact zone with *B. hylophaga* although the contact zone's exact location is unknown (Garland and Heidt 1989). The subspecies are *B. c. carolinensis* (Bachman

1837) in the western range of the state and *B. c. minima* Lowery 1943 in the eastern range of the state.

*Blarina hylophaga* (Elliot's short-tailed shrew).—These shrews are found in the northwestern one-third of the state (Sealander and Heidt 1990). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). See *B. carolinensis* for comments regarding contact zone. The subspecies is *B. h. hylophaga* Elliot 1899.

*Cryptotis parva* (least shrew).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *C. p. parva* (Say 1823). Recently reported from Chicot County (Whitsitt and Tappe 2009) and captured from Newton County (I. Guenther, pers. comm.).

*Notiosorex crawfordi* (desert shrew).—Presently known only from extreme western Arkansas in Crawford, Washington, and Hempstead Counties (Selander and Heidt 1990) and Lafayette and Miller Counties (Heidt et al. 1996). It recently has been found in Miller and Sebastian Counties (Thomas 2005). The state ranking is S2 (Imperiled in Arkansas; Anderson 2007). The subspecies is *N. c. crawfordi* (Coues 1877).

Family Talpidae  
(moles)

*Scalopus aquaticus* (eastern mole).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *S. a. machrinoides* Jackson 1914 occurs in northern Arkansas and *S. a. aereus* (Bangs 1896) occurs in the southern two-thirds of the state.

ORDER CHIROPTERA—BATS  
Family Vespertilionidae  
(vespertilionid bats)

*Myotis austroriparius* (southeastern myotis).—Occurs mainly in the West Gulf Coastal Plain (Sealander and Heidt 1990). Recently collected from Arkansas, Ashley, Chicot, Clark, Clay, Craighead, Crittenden, Desha, Hempstead, Jackson, Lafayette, Lawrence, Lee, Lonoke, Mississippi, Monroe, Montgomery, Nevada, Poinsett, Prairie, Union, and White Counties (Saugey et al. 1993; Fokidis et al. 2005; Medlin et al. 2006). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). *M. austroriparius* (Rhoads 1897) is monotypic.

*Myotis grisescens* (gray bat).—Occurs in the northern Arkansas Ozarks comprising the Salem and Springfield Plateau (Sealander and Heidt 1990). Nelson et al. (1991) reported it from Pope County, extending the range into the Arkansas River Valley. Sasse and Saugey (2008) reported it from Van Buren and Sebastian Counties with Sebastian County being a small southwestern range extension. Of nine known maternity colonies in Arkansas, Sasse et al. (2007) reported only one to be increasing in size, while the others appeared to be stable or decreasing in size. This bat is endangered with a state ranking of S2S3 (Imperiled species in Arkansas, uncertain rank; Anderson 2007). *M. grisescens* Howell 1909 is monotypic.

*Myotis leibii* (small-footed myotis).—Occurs in scattered localities through the western Ozark Highlands (Sealander and Heidt 1990). Saugey et al. (1993) reported an individual from Mena, Polk County, which extended the range into the Ouachita Mountains. The state ranking is S1 (Critically imperiled in Arkansas; Anderson 2007). *M. leibii* (Audubon and Bachman 1842) is monotypic.

*Myotis lucifugus* (little brown myotis).—Occurs statewide except extreme southern Arkansas (Sealander and Heidt 1990). Fokidis et al. (2005) additionally reported this species from Clay, Greene, and Lawrence Counties in extreme northeastern Arkansas, and Medlin et al. (2006) reported this species from Dallas County in the Gulf Coastal Plain. Sasse and Saugey (2008) reported it from Benton, Boone, Cleburne, Little River, Lonoke, Randolph, Van Buren, and White Counties. Fletcher et al. (1991) reported it from Jackson County. The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). The subspecies is *M. l. lucifugus* (LeConte 1831).

*Myotis septentrionalis* (northern long-eared myotis).—The subspecies *M. keeni septentrionalis* has been elevated to species level since *M. keeni* and *M. septentrionalis* occupy non-overlapping ranges and any reference to *M. keeni* outside of the Pacific Northwest refers to *M. septentrionalis* (Caceres and Barclay 2000). Formerly thought to be restricted to the Interior Highlands; however, it recently has been collected from Arkansas, Boone, Perry, Saline, and Van Buren Counties (Saugey et al. 1993; Tumlinson et al. 2002; Sasse and Saugey 2008), extending the range

into central Arkansas. *M. septentrionalis* (Trouessart 1897) is a monotypic species.

*Myotis sodalis* (Indiana bat).—Occurs in the Ozark Mountain division of the Interior Highlands (Sealander and Heidt 1990). Recently, a lactating female was captured in northeastern Arkansas from Clay County, suggesting a nearby maternity colony (Brandebura et al. 2006). This bat is considered endangered with a state ranking of S1 (Critically imperiled in Arkansas; Anderson 2007). *M. sodalis* Miller and Allen 1928 is monotypic.

*Lasiurus borealis* (eastern red bat).—Occurs throughout the state (Sealander and Heidt 1990). Recently collected from Chicot, Clark, Clay, Crawford, Crittenden, Jackson, Johnson, Lincoln, Lee, Monroe, Phillips, Pike, Poinsett, Prairie, Randolph, Union, and Woodruff Counties (Saugey et al. 1998; Cochran 1999; Fokidis et al. 2005; Medlin et al. 2006). Sasse and Saugey (2008) reported it from Boone, Fulton, Madison, Marion, Searey, and St. Francis Counties. *L. borealis* (Müller 1776) is monotypic.

*Lasiurus cinereus* (hoary bat).—Occurs throughout the state (Sealander and Heidt 1990). Recently collected from Arkansas, Boone, Clark, Columbia, Crittenden, Howard, Jackson, Lonoke, Miller, Perry, Randolph, and White Counties (Saugey et al. 1993; Tumlison et al. 2002; Fokidis et al. 2005). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). The subspecies is *L. c. cinereus* (Palisot de Beauvois 1796).

*Lasiurus seminolus* (Seminole bat).—Occurs mainly through the southern portion of the state (Sealander and Heidt 1990). Wilhide et al. (1998) extended the known range ~115 km north with records from Franklin and Baxter Counties. Fokidis et al. (2005) and Klotz and Risch (2009) extended the range eastward with records from Crittenden and Poinsett Counties. McAllister et al. (2004) collected individuals from Miller County, Arkansas, and adjacent Cass County, Texas, partially filling a distribution void in the Ark-La-Tex region. Sasse and Saugey (2008) reported it from Columbia, Randolph, Union, and Woodruff Counties. The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). *L. seminolus* (Rhoads 1895) is a monotypic species.

*Lasionycteris noctivagans* (silver-haired bat).—Occurs throughout the state (Sealander and Heidt 1990). Recently collected from Carroll, Cleburne, Faulkner, Lawrence, Newton, Sharp, Van Buren, and White Counties (Saugey et al. 1993; Sasse and Saugey 2008). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). *L. noctivagans* (LeConte 1831) is monotypic.

*Perimyotis subflavus* (American perimyotis).—The generic name *Perimyotis* has replaced the former generic name of *Pipistrellus* (Hoofer and Van Den Bussche 2003). Occurs throughout the state (Sealander and Heidt 1990). Recently collected from Arkansas, Ashley, Chicot, Cleburne, Columbia, Conway, Crittenden, Cross, Dallas, Desha, Grant, Hempstead, Hot Spring, Lincoln, Lonoke, Poinsett, and White Counties (Fokidis et al. 2005; Medlin et al. 2006; Sasse and Saugey 2008). The species is *P. s. subflavus* (F. Cuvier 1832).

*Eptesicus fuscus* (big brown bat).—Occurs throughout the state (Sealander and Heidt 1990). This species has recently been recorded from Ashley, Lincoln, Lonoke, and Woodruff Counties (Cochran 1999; Fokidis et al. 2005; Medlin et al. 2006). Sasse and Saugey (2008) reported it from Boone, Calhoun, Crawford, Dallas, Fulton, Greene, Jackson, Jefferson, Johnson, Logan, Marion, Ouachita, Randolph, Union, Van Buren, and White Counties. The subspecies is *E. f. fuscus* (Palisot de Beauvois 1796).

*Nycticeius humeralis* (evening bat).—Occurs throughout the state (Sealander and Heidt 1990). Recently collected from Arkansas, Chicot, Crittenden, Jackson, Lincoln, Lonoke, Mississippi, Poinsett, Prairie, and White Counties (Fokidis et al. 2005; Medlin et al. 2006). Sasse and Saugey (2008) reported it from Boone, Conway, Dallas, Faulkner, Jefferson, Johnson, Madison, Randolph, and Van Buren Counties. The subspecies is *N. h. humeralis* (Rafinesque 1818).

*Corynorhinus rafinesquii* (Rafinesque's big-eared bat).—The generic name *Corynorhinus* has replaced the former generic name of *Plecotus* (Tumlison and Douglas 1992). Occurs throughout the state except for most of the Ozark and Ouachita Mountains (Sealander and Heidt 1990; B. Sasse pers. comm.). This bat has recently been collected from Arkansas, Ashley, Chicot,

Clark, Clay, Crittenden, Desha, Hempstead, Howard, Independence, Lee, Lincoln, Monroe, Pike, Poinsett, Pope, Prairie, White, and Woodruff Counties (Tumlinson et al. 1992; Saugey et al. 1993; McAllister et al. 1995; Cochran 1999; Fokidis et al. 2005; Medlin et al. 2006; Sasse and Saugey 2008). The record from Independence County represents a range extension into the eastern Ozarks (McAllister et al. 1995). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). The subspecies *C. r. macrotis* LeConte 1831 occurs in the Delta and *C. r. rafinesquii* Lesson 1827 occurs elsewhere.

*Corynorhinus townsendii* (Townsend's big-eared bat).—Occurs only in northwestern and northcentral Arkansas (Sealander and Heidt 1990). This bat is endangered with the subspecies occurring in Arkansas *C. t. ingens* (Handley 1955) having a state ranking of S1 (Critically imperiled in Arkansas; Anderson 2007).

Family Molossidae  
(free-tailed bats)

*Tadarida brasiliensis* (Brazilian free-tailed bat).—Occurs in the Ouachita Mountains, West Gulf Coastal Plain, and the Mississippi Alluvial Plain (Sealander and Heidt 1990). Saugey et al. (2001) extended the range by about 139 km northward with records from Baxter and Boone Counties. Sasse and Saugey (2008) reported it from Drew, Hot Spring, Perry, Saline, and Scott Counties. The subspecies is *T. b. cynocephala* (LeConte 1831).

ORDER CINGULATA—ARMADILLOS  
Family Dasypodidae  
(armadillos)

*Dasypus novemcinctus* (nine-banded armadillo).—I follow Wilson and Reeder (2005) in the use of this ordinal name for armadillos. Armadillos now occur throughout the state (Sealander and Hedit 1990). The subspecies is *D. n. mexicanus* Peters 1864.

ORDER LAGOMORPHA—RABBITS  
Family Leporidae  
(hares and rabbits)

*Sylvilagus aquaticus* (swamp rabbit).—Sealander and Heidt (1990) suggested that this species occurs

statewide. It is scarce in the Interior Highlands but locally abundant along the major rivers. They are distributed throughout bottomland hardwoods in Arkansas (Fowler and Kissell 2007). *S. aquaticus* (Bachman 1837) is a monotypic species.

*Sylvilagus floridanus* (eastern cottontail).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *S. f. alacer* (Bangs 1896).

*Lepus californicus* (black-tailed jackrabbit).—Only found in the extreme northwestern portion of the state with documented records only from Benton and Washington Counties (Sealander and Heidt 1990). The state ranking is S1S2 (Critically imperiled in Arkansas, uncertain rank; Anderson 2007). Most mail survey reports were within the expected range (Majors et al. 1996). The subspecies is *L. c. melanotis* Mearns 1890.

ORDER RODENTIA—RODENTS  
Family Sciuridae  
(squirrels and allies)

*Tamias striatus* (eastern chipmunk).—Sealander and Heidt (1990) showed the eastern chipmunk occurring irregularly (21 counties) throughout the Arkansas River Valley, Ozark Mountains, and Ouachita Mountains. It recently has been recorded from Carroll, Cleburne, Clark, Crawford, Franklin, Madison, Marion, and Montgomery Counties (Tumlison et al. 1992; Sasse 2003). The subspecies is *T. s. venustus* Bangs 1896.

*Marmota monax* (woodchuck).—Sealander and Heidt (1990) showed its distribution primarily confined to the Interior Highlands. It recently has been recorded from Clark, Desha, Garland, Hot Spring, and Howard Counties (Tumlison et al. 2001). A specimen collected near Warren, Bradley County, is the most southeastern record (Tumlison et al. 2007). The subspecies is *M. m. monax* Linnaeus 1758.

*Sciurus carolinensis* (eastern gray squirrel).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *S. c. carolinensis* Gmelin 1788.

*Sciurus niger* (eastern fox squirrel).—Occurs throughout the state (Sealander and Heidt 1990). The

subspecies *S. n. rufiventer* Geoffroy St.-Hilaire 1803 occurs in the northern two-thirds of Arkansas, *S. n. ludovicianus* Custis 1806 occurs in the southwestern portion of Arkansas, and *S. n. subauratus* Bachman 1839 occurs in the southeastern portion of Arkansas.

*Glaucomys volans* (southern flying squirrel).—Occurs throughout the state in wooded areas (Sealander and Heidt 1990). The subspecies *G. v. saturates* Howell 1915 occurs throughout most of its distribution in Arkansas with *G. v. texensis* Howell 1915 possibly occurring in the extreme southwestern corner and *G. v. volans* (Linnaeus 1758) possibly occurring in the extreme northernmost counties of Arkansas.

Family Geomyidae  
(pocket gophers)

*Geomys breviceps* (Baird's pocket gopher).—Sealander and Heidt (1990) suggested that all pocket gophers occurring in Arkansas were *Geomys breviceps*, but the individuals from Izard and Stone Counties were determined to be *Geomys bursarius* (see account below). Known from the southern two-thirds of Arkansas (Sealander and Heidt 1990), recently collected in Ashley, Calhoun, Cleburne, Crawford, Faulkner, Hot Spring, Johnson, Lincoln, Logan, Pike, Polk, Prairie, Scott, Washington, and White Counties (Elrod et al. 1996b; Connior, in press.). The subspecies *G. b. breviceps* Baird 1855 is currently known from extreme southern Arkansas in Ashley and Union Counties (Kieschnick 2008) and *G. b. sagittalis* Merriam 1895 occupies its range elsewhere in the state.

*Geomys bursarius* (plains pocket gopher).—This species was distinguished from *G. breviceps* based on nucleotide sequence analysis of the cytochrome-*b* gene of mtDNA and identification of chewing lice (Elrod et al. 1996a, 2000). It is presently known from only Stone and Izard Counties (Connior, in press; Elrod et al. 2000). The state ranking is S1 (Critically imperiled in Arkansas; Anderson 2007). The subspecies is *G. b. ozarkensis* Elrod, Zimmerman, Sudman, and Heidt 2000.

Family Castoridae  
(beavers)

*Castor canadensis* (American beaver).—Occurs throughout the state (Sealander and Heidt 1990). Spe-

cific subspecies occurring in Arkansas is questionable due to restocking efforts occurring from populations throughout its range in the United States (Sealander and Heidt 1990).

Family Muridae  
(mice, rats and voles)

*Oryzomys palustris* (marsh rice rat).—Occurs throughout most of the state except the north central portion (Sealander and Heidt 1990). Stewart et al. (1989) reported this species from 10 southwestern counties and Tumlinson et al. (1992) recently reported it from Clark and Hot Spring Counties. The subspecies is *O. p. texensis* Allen 1894.

*Reithrodontomys fulvescens* (fulvous harvest mouse).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *R. f. aurantius* Allen 1895.

*Reithrodontomys humulis* (eastern harvest mouse).—Occurs in the upper portion of the Mississippi Alluvial Plain as far south as Lee County and the southwestern portion of the state (Sealander and Heidt 1990). Yet, it has only been recorded from Columbia, Greene, Hempstead, Lee, Mississippi, and Sebastian Counties (Heidt et al. 1996). The state ranking is S2 (Imperiled in Arkansas; Anderson 2007). The subspecies *R. h. humulis* Audubon and Bachman 1841 occurs in the east and *R. h. merriami* Allen 1895 occurs in the west.

*Reithrodontomys megalotis* (western harvest mouse).—Known from the northeastern portion of the state in Greene, Mississippi, and Lee Counties and from the western portion in Sebastian and Columbia Counties (Sealander and Heidt 1990). The state ranking is S3 (Vulnerable species in Arkansas; Anderson 2007). The subspecies is *R. m. dychei* Allen 1895.

*Reithrodontomys montanus* (plains harvest mouse).—Only known from the extreme northwestern corner of the state in Washington and Benton Counties (Sealander and Heidt 1990). The state ranking is S1 (Critically imperiled in Arkansas; Anderson 2007). The subspecies is *R. m. griseus* Bailey 1905.

*Peromyscus attwateri* (Texas mouse).—Distribution is restricted to the Interior Highlands (Sealander

and Heidt 1990). *P. attwateri* (Allen 1893) is a monotypic species.

*Peromyscus gossypinus* (cotton mouse).—Occurs throughout most of the state except the western half of the Springfield and Salem Plateaus (Sealander and Heidt 1990). The subspecies is *P. g. megacephalus* (Rhoads 1894).

*Peromyscus leucopus* (white-footed mouse).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *P. l. noveboracensis* (Fischer 1829) occurs in the northern tier of counties and *P. l. leucopus* (Rafinesque 1818) occurs throughout the rest of Arkansas.

*Peromyscus maniculatus* (deer mouse).—Occurs throughout most of the state except the West Gulf Coastal Plain (Sealander and Heidt 1990). The subspecies *P. m. bairdii* (Eleftheriou, Bronson, and Zarrow 1962) and *P. m. ozarkiarum* Black 1935 occur in the state but the exact distributions are not known.

*Ochrotomys nuttalli* (golden mouse).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *O. n. flammeus* (Goldman 1941) occurs in most of the state and *O. n. lisae* Packard 1969 occurs in southeastern and northeastern Arkansas.

*Sigmodon hispidus* (hispid cotton rat).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *S. h. hispidus* Say and Ord 1825 occurs throughout most of the state with *S. h. texianus* (Audubon and Bachman 1853) occurring on the western edge.

*Neotoma floridana* (eastern woodrat).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *N. f. osagensis* Blair 1939 is distributed throughout the Interior Highlands and *N. f. illinoensis* Howell 1910 occurs in the Gulf Coastal Plain.

\**Rattus norvegicus* (Norway rat).—Widespread throughout Arkansas (Sealander and Heidt 1990) in and near human habitations.

\**Rattus rattus* (roof rat).—Probably occurs statewide, associated with human habitations (Sealander and Heidt 1990).

\**Mus musculus* (house mouse).—Occurs statewide (Sealander and Heidt 1990), usually in close association with humans.

*Microtus ochrogaster* (prairie vole).—Occurs across the northern tier of counties and along the Gulf Coastal Plain with a southernmost location of Arkansas County (Sealander and Heidt 1990). The subspecies is *M. o. ochrogaster* (Wagner 1842).

*Microtus pinetorum* (woodland vole).—Occurs throughout the state (Sealander and Heidt 1990). Recently collected from Clark, Hot Spring, and Newton Counties (Tumlinson et al. 1992; McAllister et al. 2008; I. Guenther, pers. comm.). The subspecies *M. p. nemoralis* Bailey 1898 occurs in the Interior Highlands and *M. p. auricularis* Bailey 1898 occurs in the Gulf Coastal Plain.

*Ondatra zibethicus* (common muskrat).—Presumed to occur statewide (Sealander and Heidt 1990). The subspecies is *O. z. zibethicus* (Linnaeus 1758).

*Synaptomys cooperi* (southern bog lemming).—Locally distributed in the northeastern and north central portion of Arkansas with only seven verified county records (Sealander and Heidt 1990). The state ranking is S2 (Imperiled species in Arkansas; Anderson 2007). The subspecies is *S. c. gossii* (Coues 1877).

#### Family Myocastoridae (myocastorids)

\**Myocastor coypus* (nutria).—The familial name Myocastoridae is now used instead of Capromyidae (Baker et al. 2003; Wilson and Reeder 2005). Found in aquatic habitat throughout the state except in the Ozark and Ouachita Mountains (Sealander and Heidt 1990).

#### ORDER CARNIVORA—CARNIVORES Family Canidae (dogs, foxes, and wolves)

\**Canis familiaris* (feral dog).—Feral dogs may be common in some areas of Arkansas.

*Canis latrans* (coyote).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *C. l. frustror* Woodhouse 1851.

*Vulpes vulpes* (red fox).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *V. v. fulva* (Demarest 1820).

*Urocyon cinereoargenteus* (common gray fox).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *U. c. floridanus* Rhoads 1895.

Family Ursidae  
(bears)

*Ursus americanus* (black bear).—Formerly occurred throughout the state (Sealander and Heidt 1990); however, currently the largest populations occur in the Ozark Mountains, Ouachita Mountains, and the White River National Wildlife Refuge (Smith and Clark 1994; Clark and Eastridge 2006). The state ranking is S5 (Secure in Arkansas; Anderson 2007). The subspecies *U. a. luteolus* Griffith 1821 occurs around the White River National Wildlife Refuge and *U. a. americanus* Pallas 1780 occurs throughout the Ozark and Ouachita Mountains.

Family Procyonidae  
(raccoons and ringtails)

*Bassariscus astutus* (ringtail).—Occurs in extreme southern Arkansas with only one confirmed record in Bradley County (Sealander and Heidt 1990). Ringtails may occur throughout the eastern portion of the Gulf Coastal Plain based on sightings (Sealander and Heidt 1990; Majors et al. 1996). The state ranking is SU (Possibly in peril in the state, but status uncertain; Anderson 2007). The subspecies is *B. a. flavus* Rhoads 1894.

*Procyon lotor* (northern raccoon).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *P. l. hirtus* Nelson and Goldman 1930 is the predominate subspecies, although some occurring along the southern and eastern borders may be *P. l. varius* Nelson and Goldman 1930.

Family Mustelidae  
(mustelids)

*Mustela frenata* (long-tailed weasel).—Occurs statewide although rare (Sealander and Heidt 1990). Weasels have been reported to occur from 41 counties

(Majors et al. 1996). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). The subspecies is *M. f. primulina* Jackson 1913.

*Mustela vison* (American mink).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *M. v. mink* Peale and Palisot de Beauvois 1796 occurs in western and northeastern Arkansas and *M. v. vulgivaga* (Bangs 1895) occurs in central and southern Arkansas.

*Taxidea taxus* (American badger).—Previously reported from Washington County in extreme northwestern Arkansas (Sealander and Heidt 1990) and Franklin and Stone Counties (Cartwright and Heidt 1994). New records from the Ozarks and the Alluvial Plain of northeastern Arkansas are being documented (Tumlinson, pers. comm.). Other reports generally are from areas surrounding documented localities (Majors et al. 1996). The state ranking is S1S2 (Critically imperiled in Arkansas, uncertain rank; Anderson 2007). The subspecies is *T. t. berlandieri* Baird 1858, although difficult to determine with the few records.

*Lontra canadensis* (northern river otter).—The generic name *Lontra* has now replaced the former generic name of *Lutra* (Wozencraft 1993). Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *L. c. lataxina* (F. Cuvier 1823).

Family Mephitidae  
(skunks)

*Spilogale putorius* (eastern spotted skunk).—*Spilogale* and *Mephitis* are now included in the family Mephitidae rather than Mustelidae (Dragoo and Honeycutt 1997). Sealander and Heidt (1990) stated that the spotted skunk occurred throughout the state but verified records are known only from the Interior Highlands. Sasse and Gompper (2006) reported that this species occurs statewide based on harvest records from the Arkansas Game and Fish Commission. The state ranking is S2? (Imperiled in Arkansas with uncertain ranking; Anderson 2007). The subspecies is *S. p. interrupta* (Rafinesque 1820).

*Mephitis mephitis* (striped skunk).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies *M. m. mesomelas* Lichtenstein 1832 occurs

over throughout most of the state and *M. m. nigra* (Peale and Palisot de Beauvois 1796) may occur in the northeastern portion of Arkansas.

Family Felidae  
(cats)

\**Felis catus* (feral cat).—Feral cats may be common in some areas of the state.

*Puma concolor* (mountain lion).—The generic name *Puma* has now replaced the former generic name of *Felis* (Wozencraft 1993). McBride et al. (1993) concluded there were no reproductive populations of mountain lions in Arkansas. However, sightings have been reported and scats, and plaster track casts have been collected from Hot Spring, Garland, Pulaski, and Saline Counties (Whitsell et al. 1999; Clark et al. 2002). The origin of these individuals is not known, but they may have originated from captive populations (Bowers et al. 2001). In 2000, at least 20 Arkansas counties were known to contain “pet” mountain lions (Sasse 2001). The subspecies that historically occurred in Arkansas is uncertain because no Arkansas specimens were included within range distributions (B. Sasse, pers. comm.).

*Lynx rufus* (bobcat).—The generic name *Lynx* has now replaced the former generic name of *Felis* (Wozencraft 1993). Occurs throughout the state (Sealander and Heidt 1990). The subspecies *L. r. floridanus* Rafinesque 1817 occurs over most of the Gulf Coastal Plain and

the subspecies *L. r. rufus* Schreber 1777 occurs in the Interior Highlands.

ORDER ARTIODACTYLA—EVEN-TOED UNGULATES

Family Suidae  
(pigs)

\**Sus scrofa* (feral pig).—Presently are likely to occur statewide with large populations in some areas.

Family Cervidae  
(deer)

*Cervus elaphus* (wapiti or elk).—The elk originally ranged into Arkansas but the species was extirpated from the state by 1840 (Sealander and Heidt 1990). During the 1980’s, elk were reintroduced along the Buffalo National River (The Elk Committee 2009). The current elk population is estimated at ~500 individuals with the majority of the individuals concentrated in Newton and Searcy Counties, but a few individuals range into Boone, Carroll, and Madison Counties (Zeller 2008). The state ranking is S3 (Vulnerable in Arkansas; Anderson 2007). The native subspecies was *C. e. canadensis* Erxleben 1777; the current subspecies is *C. e. nelsoni* Bailey 1935.

*Odocoileus virginianus* (white-tailed deer).—Occurs throughout the state (Sealander and Heidt 1990). The subspecies is *O. v. macrourus* (Rafinesque 1817).

#### ACKNOWLEDGMENTS

I would like to thank D. B. Sasse, R. Tumlison, an anonymous reviewer, and the editorial staff of the Occasional Papers, Museum of Texas Tech, for provid-

ing comments on an earlier version of the manuscript. Thanks are also extended to those who shared unpublished county records.

#### LITERATURE CITED

- Anderson, J. E., ed. 2007. Arkansas Wildlife Action Plan (last updated 5/03/2007). Arkansas Game and Fish Commission, Little Rock, Arkansas.
- Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. S. Hoffmann, C. A. Jones, D. W. Rice, and C. Jones. 2003. Revised checklist of North American mammals north of Mexico, 2003. Occasional Papers, Museum of Texas Tech University 229:1-23.
- Bowers, A. K., L. D. Lucio, D. W. Clark, S. P. Rakow, and G. A. Heidt. 2001. Early history of the wolf, black bear, and mountain lion in Arkansas. Journal of the Arkansas Academy of Science 55:22-27.

Brandebura, S. C., R. E. Medlin, Jr., and T. S. Risch. 2006. New evidence for a maternity colony of the Indiana bat (*Myotis sodalis*) in the Delta of Arkansas. *Journal of the Arkansas Academy of Science* 60:169-170.

Calceres, M. C., and R. M. R. Barclay. 2000. *Myotis septentrionalis*. *Mammalian Species* 634:1-4.

Cartwright, M. E. and G. A. Heidt. 1994. Distributional records of the badger (*Taxidea taxus*) in Arkansas. *Proceedings Arkansas Academy of Science* 48:248.

Clark, D.W., S. C. White, A. K. Bowers, L. D. Lucio, and G. A. Heidt. 2002. A survey of recent accounts of the mountain lion (*Puma concolor*) in Arkansas. *Southeastern Naturalist* 1:269-278.

Clark, J. D., and R. Eastridge. 2006. Growth and sustainability of black bears at the White River National Wildlife Refuge, Arkansas. *Journal of Wildlife Management* 70:1094-1101.

Cochran, S. M. 1999. Roosting and habitat use by Rafinesque's big-eared bat and other species in a bottomland hardwood forest ecosystem. M.S. Thesis, Arkansas State University, Jonesboro, Arkansas.

Connior, M. B. 2010. Young of *Geomys breviceps* in Arkansas. *Texas Journal of Science*: In Press.

Connior, M. B., I. Guenther, T. S. Risch, and S.E. Trauth. 2008. Amphibian, reptile, and small mammal associates of Ozark pocket gopher habitat. *Journal of the Arkansas Academy of Science* 62:45-51.

Connior, M. B., A. A. Kershen, R. E. Medlin, D. E. Elrod, D. B. Sasse, and T. S. Risch. 2010. Distribution and habitat affinities of an endemic pocket gopher. *American Midland Naturalist*: In Press.

Dragoo, J. W., and R. L. Honeycutt. 1997. Systematics of mustelid-like carnivores. *Journal of Mammalogy* 78:426-443.

Elrod, D. A., G. A. Heidt, D. M. A. Elrod, M. Birdsong, and E. G. Zimmerman. 1996a. A second species of pocket gopher in Arkansas. *Southwestern Naturalist* 41:395-398.

Elrod, D. A., G. A. Heidt, M. R. Ingraham, and E. G. Zimmerman. 1996b. Distribution of Baird's pocket gopher (*Geomys breviceps*) in Arkansas with additional county records. *Proceedings Arkansas Academy of Science* 50:52-54.

Elrod, D. A., E. G. Zimmerman, P. D. Sudman, and G. A. Heidt. 2000. A new subspecies of pocket gopher (genus *Geomys*) from the Ozark Mountains of Arkansas with comments on its historical biogeography. *Journal of Mammalogy* 81:852-864.

Fletcher, M. D., J. D. Wilhide, and R. B. McAllister. 1991. Observations on a resident population of *Myotis lucifugus*, in Jackson County, Arkansas. *Proceedings Arkansas Academy of Science* 45:123.

Fokidis, H. B., S. C. Brandebura, and T. S. Risch. 2005. Distributions of bats in bottomland hardwood forests of the Arkansas delta region. *Journal of the Arkansas Academy of Science* 59:51-56.

Fowler, A., and R. E. Kissell, Jr. 2007. Winter relative abundances and habitat associations of swamp rabbits in eastern Arkansas. *Southeastern Naturalist* 6:247-258.

Garland, D. A., and G. A. Heidt. 1989. Distribution and status of shrews in Arkansas. *Proceedings Arkansas Academy of Science* 43:35-38.

Heidt, G. A., D. A. Elrod, and V. R. McDaniel. 1996. Biogeography of Arkansas mammals with notes on species of questionable status. *Proceedings Arkansas Academy of Science* 50:60-65.

Huston, R. M., and T. A. Nelson. 1994. Barn owl (*Tyto alba*) food habits in west-central Arkansas. *Proceedings Arkansas Academy of Science* 48:73-74.

Hoofer, S. R., and R. A. Van Den Bussche. 2003. Molecular phylogenetics of the chiropteran family Vespertilionidae in Texas. *Acta Chiropterologica* 5 (supplement):1-63.

Kieschnick, S. R. 2008. Assessing population genetic structure of Baird's pocket gopher (*Geomys breviceps*) with amplified fragment length polymorphism (AFLP). M.S. Thesis, Tarleton State University, Stephenville, Texas.

Klotz, T. L., and T. S. Risch. 2009. New county distributional record for the Seminole bat. *Journal of the Arkansas Academy of Science* 63:190-191.

Majors, T. J., D. C. Brock and G. A. Heidt. 1996. A mail survey to determine the status of black-tailed jackrabbit, ringtail, long-tailed weasel, badger, and eastern spotted skunk in Arkansas. *Proceedings Arkansas Academy of Science* 50:127-130.

McAllister, C., R. Seville, and S. Upton. 2008. *Eimeria wenrichi* (Apicomplexa: Eimeriidae) from the Woodland Vole, *Microtus pinetorum* (Rodentia: Cricetidae), in Central Arkansas: A New Host and Geographic Record. *Journal of the Arkansas Academy of Science* 62:153-154.

McAllister, C. T., S. E. Trauth, and L. D. Gage. 1995. Vertebrate fauna of abandoned mines at Gold Mine Springs, Independence County, Arkansas. *Proceedings Arkansas Academy of Science* 49:184-186.

McAllister, C. T., Z. D. Ramsey, and N. E. Solley. 2004. Noteworthy records of the Seminole bat, *Lasiurus seminolus* (Chiroptera: Vespertilionidae), from southwestern Arkansas and northeastern Texas. Journal of the Arkansas Academy of Science 58:137-138.

McBride, R. T., R. M. McBride, J. L. Cashman, and S. S. Maehr. 1993. Do mountain lions exist in Arkansas? Proceedings Annual Conference of Southeast Fish and Wildlife Agencies 47:394-402.

Medlin, R. E., Jr., S. C. Brandebura, H. B. Fokidis, and T. S. Risch. 2006. Distribution of Arkansas's bottomland bats. Journal of the Arkansas Academy of Science 60:189-191.

Nelson, T. A., D. A. Saugey and L. E. Carolan. 1991. Range extension of the endangered gray bat, *Myotis grisescens*, into the Arkansas River Valley. Proceedings Arkansas Academy of Science 45:129-131.

Sasse, D. B. 2003. New records of the eastern chipmunk (*Tamias striatus*) from Arkansas. Journal of the Arkansas Academy of Science 57:226.

Sasse, D. B. 2001. Status of pet mountain lions (*Puma concolor*) in Arkansas. Journal of the Arkansas Academy of Science 55:188.

Sasse, D. B., R. L. Clawson, M. J. Harvey, and S. L. Hensley. 2007. Status of populations of the endangered gray bat in the western portion of its range. Southeastern Naturalist 6:165-172.

Sasse, D. B., and M. E. Gompper. 2006. Geographic distribution and harvest dynamics of the eastern spotted skunk in Arkansas. Journal of the Arkansas Academy of Science 60:119-124.

Sasse, D., and D. Saugey. 2008. Rabies prevalence among and new distribution records of Arkansas bats. Journal of the Arkansas Academy of Science 62:159-160.

Saugey, D. A., B. G. Crump, R. L. Vaughn, and G. A. Heidt. 1998. Notes on the natural history of *Lasiurus borealis* in Arkansas. Journal of the Arkansas Academy Science 56:206-211.

Saugey, D. A., D. B. Sasse, J. D. Wilhide, D. Reed, T. R. Jones, D. R. Heath, and D. R. England. 2001. Distribution of LeConte's free-tailed bat (*Tadarida brasiliensis cynocephala*) in Arkansas, with notes on reproduction and natural history. Journal of the Arkansas Academy of Science 55:137-147.

Saugey, D. A., D. R. England, L. R. Chandler-Mozisek, V. R. McDaniel, M. C. Rowe and B. G. Cochran. 1993. Arkansas range extensions of the eastern small-footed bat (*Myotis leibii*) and northern long-eared bat (*Myotis septentrionalis*) and additional county records for the silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), southeastern bat (*Myotis austroriparius*), and Rafineque's big-eared bat (*Plecotus rafinesquii*). Proceedings Arkansas Academy of Science 47:102-106.

Sealander, J. A. and G. A. Heidt. 1990. Arkansas mammals: their natural history, classification, and distribution. University of Arkansas Press, Fayetteville, Arkansas.

Showen, L. L. 2006. Effects of oak woodland restoration on small mammals in the Ozark National Forest. M.S. Thesis, Arkansas Tech University, Russellville, Arkansas.

Smith, K. G., and J. D. Clark. 1994. Black bears in Arkansas: characteristics of a successful translocation. Journal of Mammalogy 75:309-320.

Stewart, T. W., V. R. McDaniel, and D. R. England. 1989. The mammals of southwestern Arkansas Part II. Rodents. Proceedings Arkansas Academy of Science 43:88-92.

The Elk Committee. 2009. Strategic elk management plan. Arkansas Game and Fish Commission, Little Rock, Arkansas.

Thomas, S. R. 2005. Status and distribution of Crawford's gray shrew (*Notiosorex crawfordi*) in Arkansas. M.S. Thesis, University of Arkansas at Little Rock, Little Rock, Arkansas.

Tumlison R., and M. E. Douglas. 1992. Parsimony analysis and the phylogeny of the plecotine bats (Chiroptera: Vespertilionidae). Journal of Mammalogy 73:276-285.

Tumlison R., A. Smith, and R. Frazier. 2001. New records of the woodchuck (*Marmota monax*) from southern Arkansas. Journal of the Arkansas Academy of Science 55:191-192.

Tumlison R., D. B. Sasse, T. Pennington, and N. Freeman. 2007. Recent observations of the distribution of woodchucks (*Marmota monax*) in Arkansas. Journal of the Arkansas Academy of Science 61:109-112.

Tumlison, R., M. Karnes, and M. Clark. 1992. New records of vertebrates in southwestern Arkansas. Proceedings Arkansas Academy of Science 46:109-111.

Tumlison, R., T. Fulmer, T. Finley, and D. Saugey. 2002. Bats of the Jessieville Ranger District, Ouachita National Forest, Arkansas. Journal of the Arkansas Academy of Science 56:206-211.

Whitsitt, T. A., and P. A. Tappe. 2009. Temporal variation of a small-mammal community at a wetland restoration site in Arkansas. *Southeastern Naturalist* 8:381-386.

Witsell, T., G. A. Heidt, P. L. Dozhier, T. Frothingham, and M. Lynn. 1999. Recent documentation of mountain lion (*Puma concolor*) in Arkansas. *Journal of the Arkansas Academy of Science* 53:157-158.

Wilhide, J. D., B. Baker, and D. A. Saugey. 1998. Arkansas range extension of the Seminole bat (*Lasiusurus seminolus*). *Journal of the Arkansas Academy of Science* 52:140-141.

Wilson, D. E., and D. M. Reeder (eds.). 2005. *Mammal species of the world: a taxonomic and geographic reference*. Johns Hopkins University Press, Baltimore, Maryland.

Wozencraft, W. C. 1993. Order Carnivora. Pp. 279–348 in *Mammal species of the world: a taxonomic and geographic reference* (D. E. Wilson and D. M. Reeder, eds.). Smithsonian Institution Press, Washington, D.C.

Zeller, R. (ed.). 2008. Elk in Arkansas. Arkansas Game and Fish Commission, Little Rock, Arkansas.

*Address of author:*

**MATTHEW B. CONNIOR**

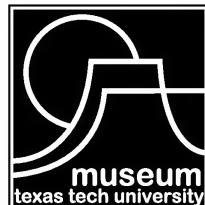
*Department of Biology  
Health and Natural Sciences  
South Arkansas Community College  
El Dorado, AR 71731-7010 USA  
mconnior@southark.edu*

**PUBLICATIONS OF THE MUSEUM OF TEXAS TECH UNIVERSITY**

This publication is available free of charge in PDF format from the website of the Natural Science Research Laboratory, Museum of Texas Tech University (nsrl.ttu.edu). The authors and the Museum of Texas Tech University hereby grant permission to interested parties to download or print this publication for personal or educational (not for profit) use. Re-publication of any part of this paper in other works is not permitted without prior written permission of the Museum of Texas Tech University.

Institutional subscriptions to Occasional Papers are available through the Museum of Texas Tech University, attn: NSRL Publications Secretary, Box 43191, Lubbock, TX 79409-3191. Individuals may also purchase separate numbers of the Occasional Papers directly from the Museum of Texas Tech University.

Series Editor: Robert J. Baker  
Production Editor: Lisa Bradley



**ISSN 0149-175X**

*Museum of Texas Tech University, Lubbock, TX 79409-3191*